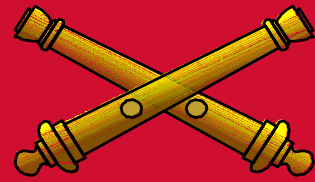
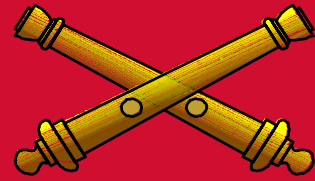


GUNNERY DEPARTMENT GUNNERY DEPARTMENT



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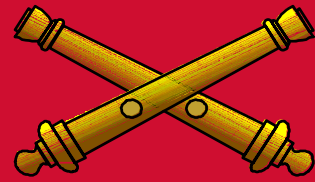


THE MISSION OF THE FIELD ARTILLERY

**IS TO DESTROY, NEUTRALIZE, OR
SUPPRESS THE ENEMY BY CANNON
ROCKET AND MISSILE FIRE AND TO HELP
INTEGRATE ALL FIRE SUPPORT ASSETS
INTO COMBINED ARMS OPERATIONS**

“KING OF BATTLE”

GUNNERY DEPARTMENT



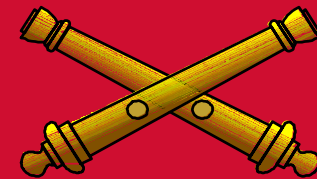
ARTILLERY AMMUNITION



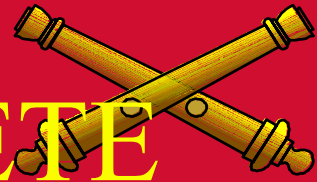
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EFFECTS ON TARGET

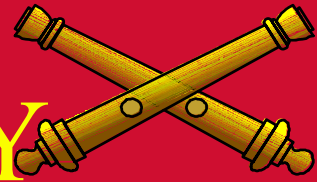


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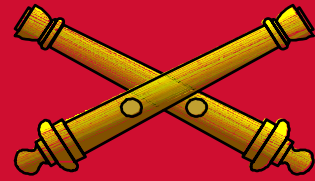
COMPONENTS OF A COMPLETE ROUND

- PRIMER
- PROPELLANT
- PROJECTILE
- FUZE



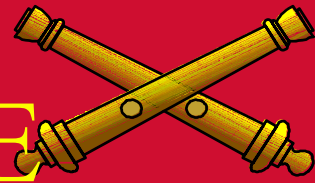
TWO TYPES OF ARTILLERY AMMUNITION

- SEMI-FIXED
- SEPERATE LOADING



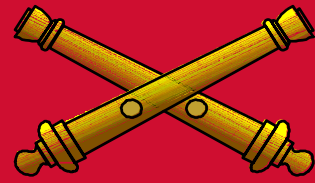
EXPLOSIVE TRAINS

A DESIGNED ARRANGEMENT OF A SERIES OF EXPLOSIVES BEGINNING WITH A SMALL QUANTITY OF SENSITIVE EXPLOSIVE AND PROGRESSING THROUGH A RELATIVELY LARGE QUANTITY OF INSENSITIVE, THOUGH POWERFUL, EXPLOSIVE.



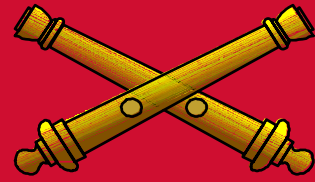
TWO TYPES OF EXPLOSIVE TRAINS

- PROPELLING CHARGE EXPLOSIVE TRAIN
- PROJECTILE EXPLOSIVE TRAIN



PROPELLING CHARGE EXPLOSIVE TRAIN

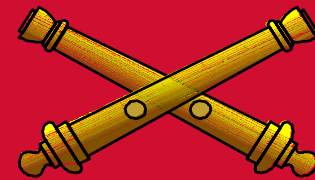
- PRIMER
- IGNITER
- PROPELLING CHARGE



PRIMER

- INITIATES THE PROPELLING CHARGE EXPLOSIVE TRAIN
- SEMI-FIXED: PRIMER IS AN INTEGRAL PART OF THE CARTRIDGE CASE
- SEPERATE LOADING: TWO TYPES OF PRIMERS ARE M82 AND MK2A4

GUNNERY DEPARTMENT



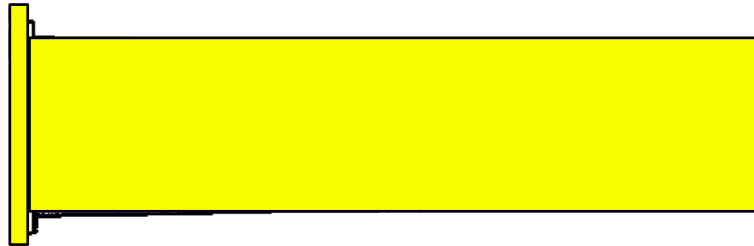
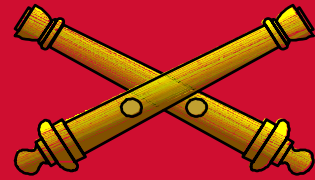
SEMI-FIXED PRIMER



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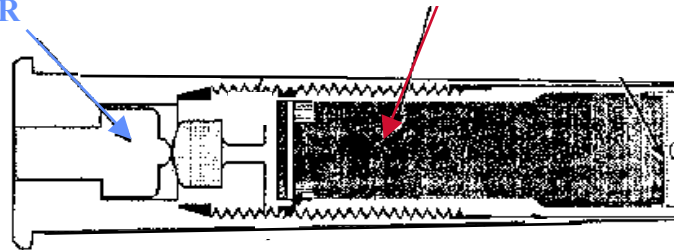
GUNNERY DEPARTMENT

M82 PRIMER



PLUNGER

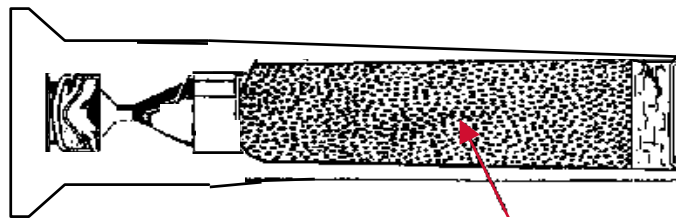
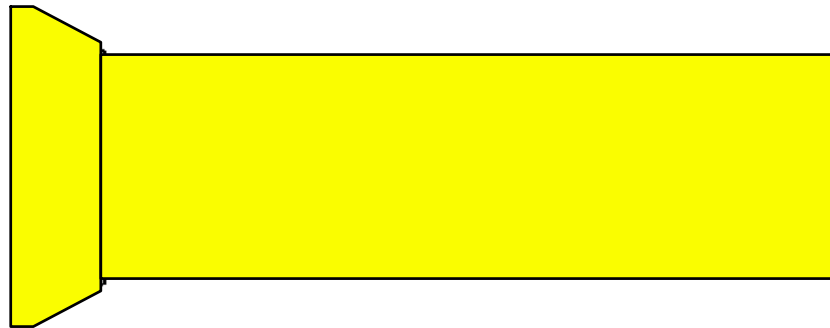
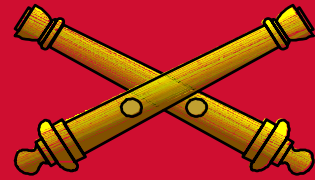
22 GRAINS BLACK POWDER



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GUNNERY DEPARTMENT

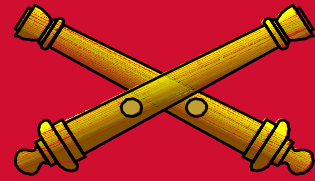
MK2A4 PRIMER



19 GRAINS BLACK POWDER

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GUNNERY DEPARTMENT



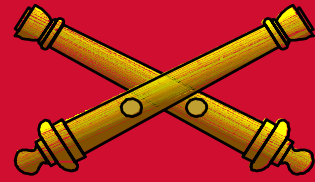
MK2A4



M82



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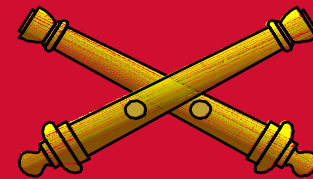


IGNITER

- PROVIDES HOT FLAMING GASES AND PARTICLES
- CONSISTS OF BLACK POWDER OR CLEAN BURNING IGNITER (CBI)
- HYGROSCOPIC AND SUBJECT TO RAPID DETERIORATION UPON ABSORPTION OF MOISTURE

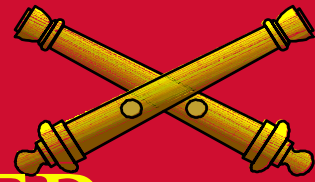
GUNNERY DEPARTMENT

SEMI-FIXED IGNITER



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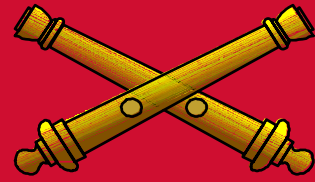
GUNNERY DEPARTMENT



SEPERATE LOADING IGNITER

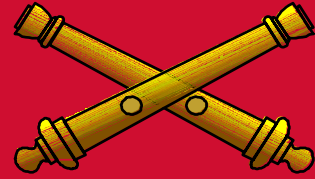


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PROPELLANT

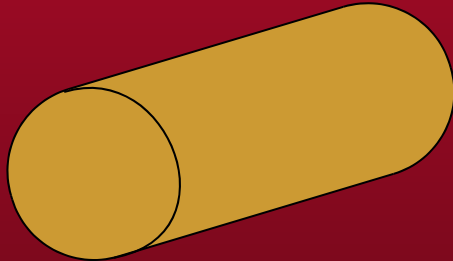
- LARGE AMOUNT OF COMPARATIVELY INSENSITIVE BUT POWERFUL EXPLOSIVE
- SINGLE PERFORATED, MULTI-PERFORATED OR STICK
- GASES CREATE PRESSURE WITHIN CHAMBER, WHICH CAUSES PROJECTILES TO BEGIN FORWARD MOVEMENT



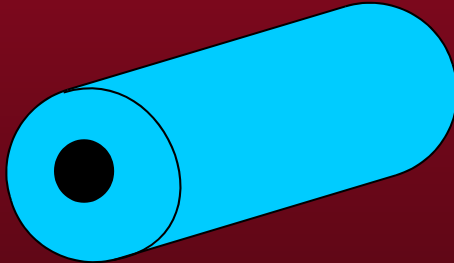
POWDER GRAIN FORMS



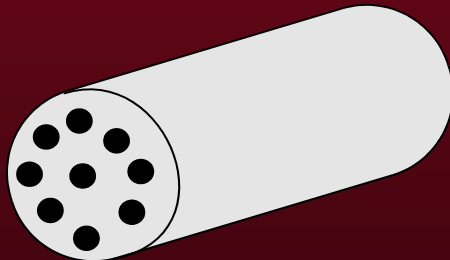
STRIP



CORD (STICK)



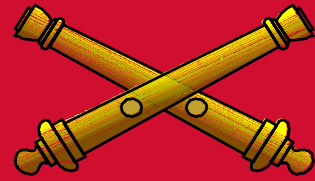
SINGLE PERFORATED



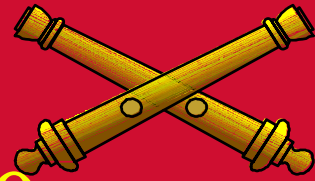
MULTI PERFORATED

GUNNERY DEPARTMENT

105MM, M67 PROPELLANT

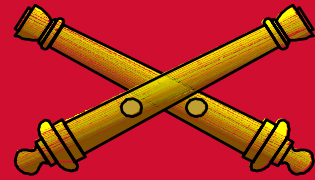


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105MM PROPELLANT, M200

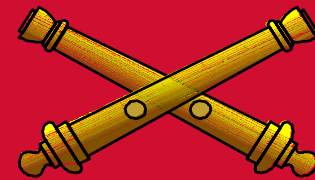
- USED WITH M119A1 HOWITZER ONLY
- FIRED WITH M760 (TNT) & M915 DPICM PROJECTILES



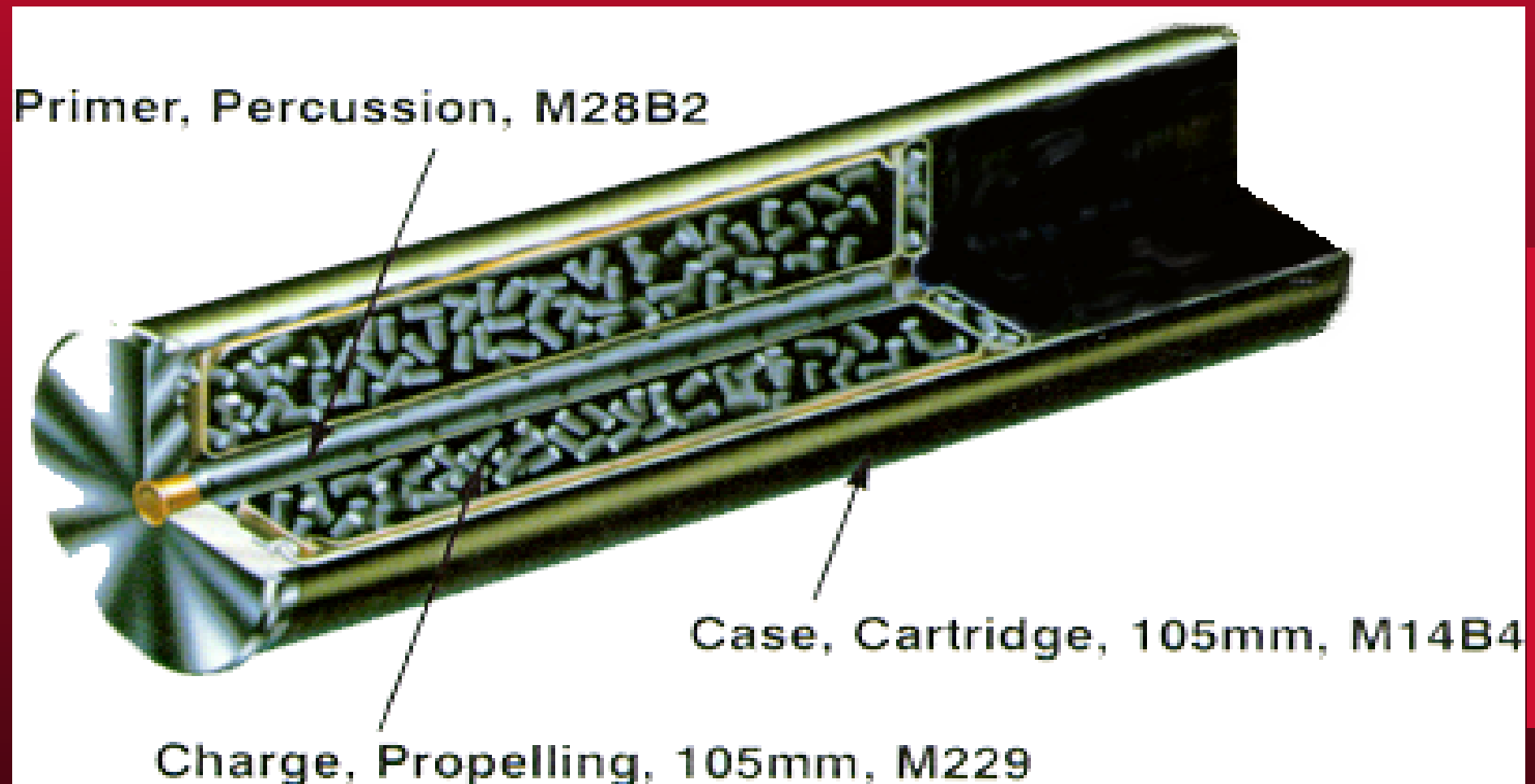
105MM PROPELLANT, M176

- DEVELOPED FOR M548 105MM RAP
- CHARGES 3-7
- FOUND IN WAR TIME RESERVES

GUNNERY DEPARTMENT

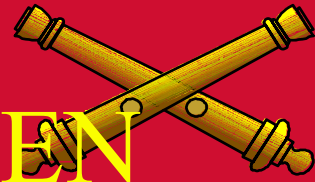


105MM PROPELLANT, M229

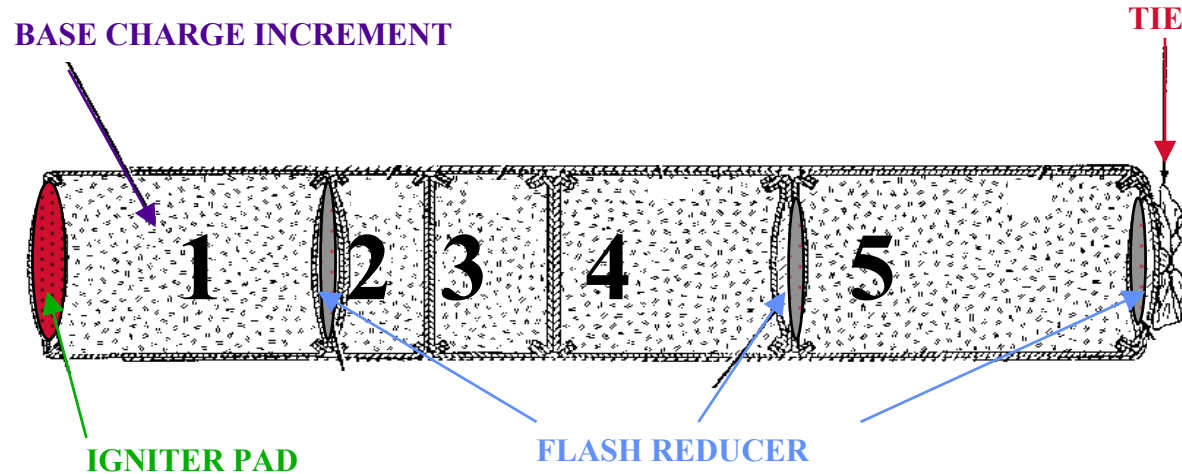


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GUNNERY DEPARTMENT



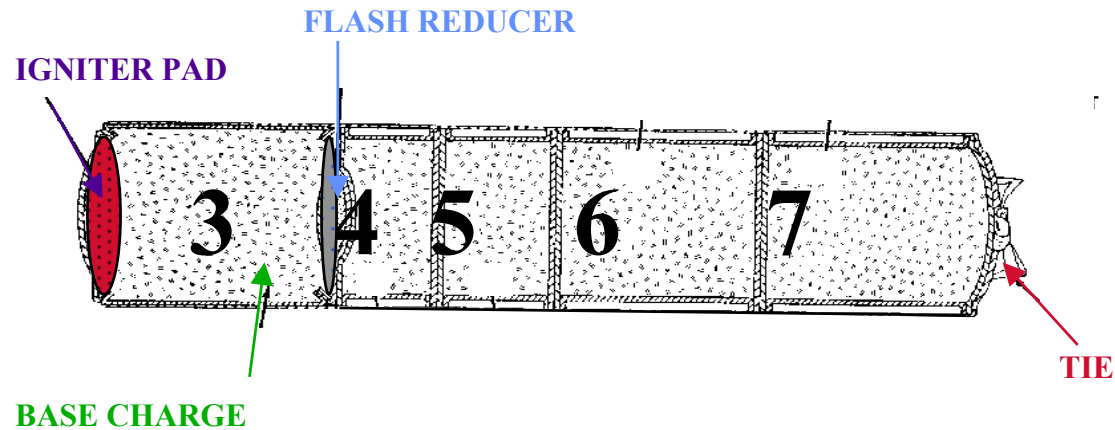
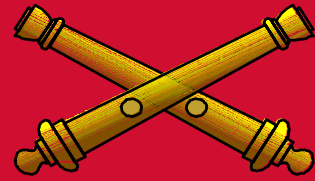
155MM PROPELLANT, M3A1 (GREEN BAG)



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GUNNERY DEPARTMENT

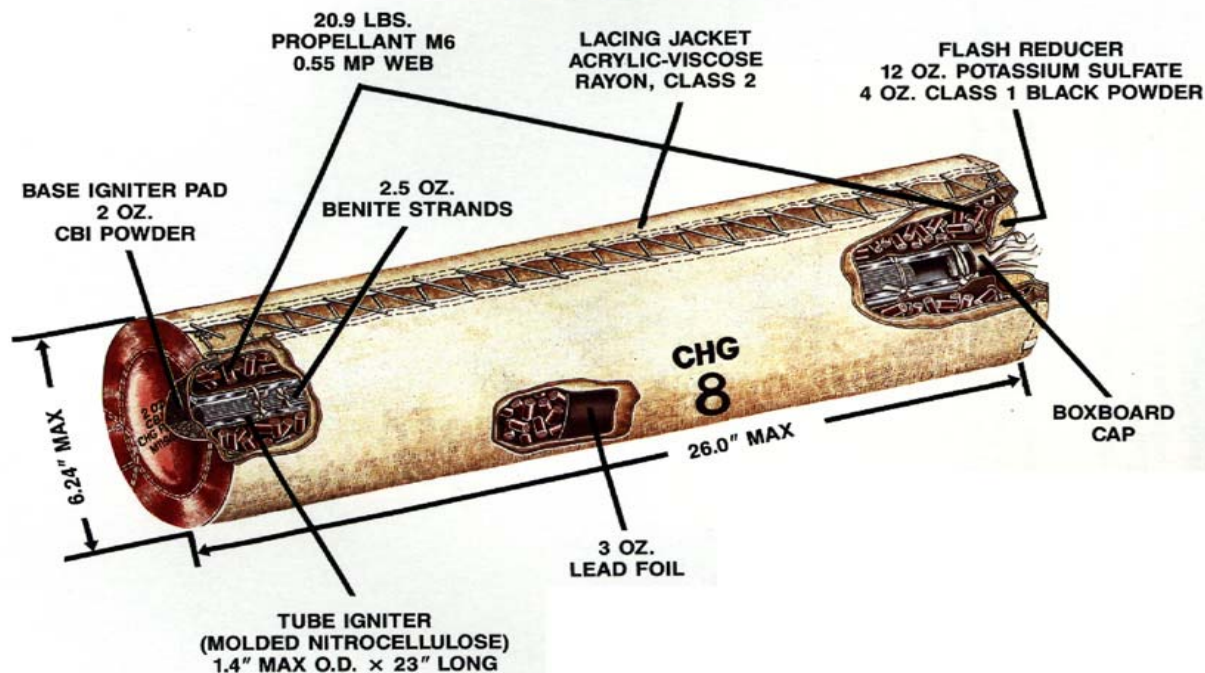
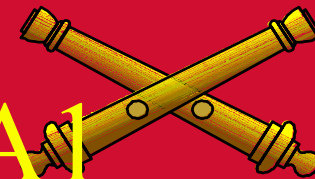
155MM PROPELLANT, M4A2 (WHITE BAG)



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GUNNERY DEPARTMENT

155MM PROPELLANT M119A1 (CHG 8 WHITE BAG)

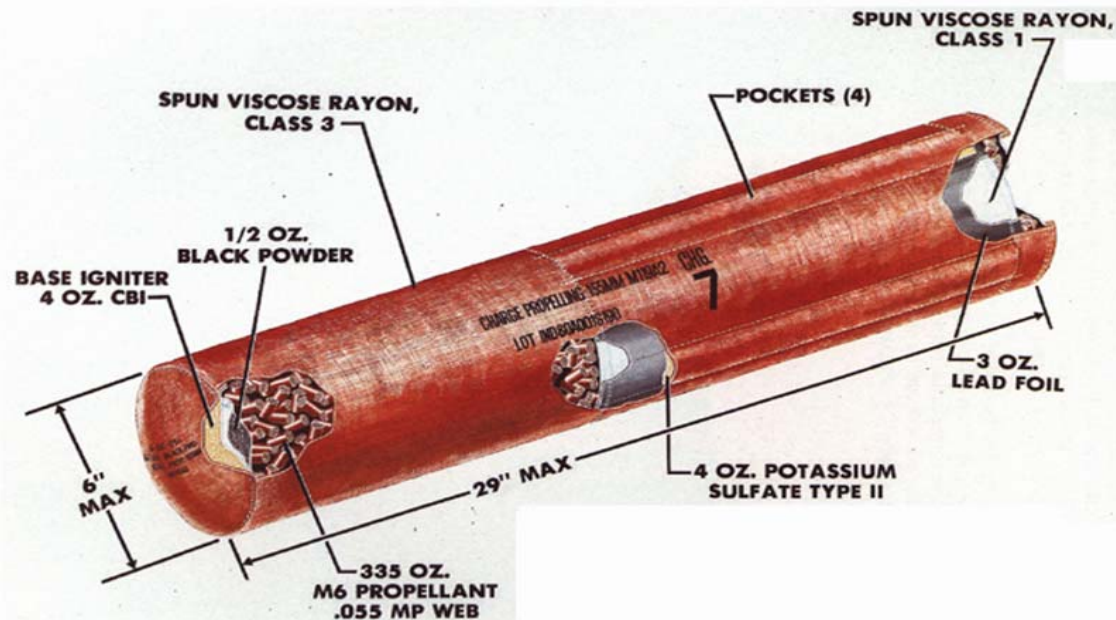
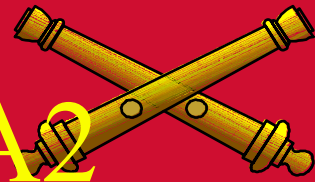


CHARGE, PROPELLING, 155MM: M119A1

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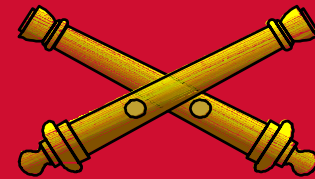
155MM PROPELLANT M119A2 (CHG 7 RED BAG)



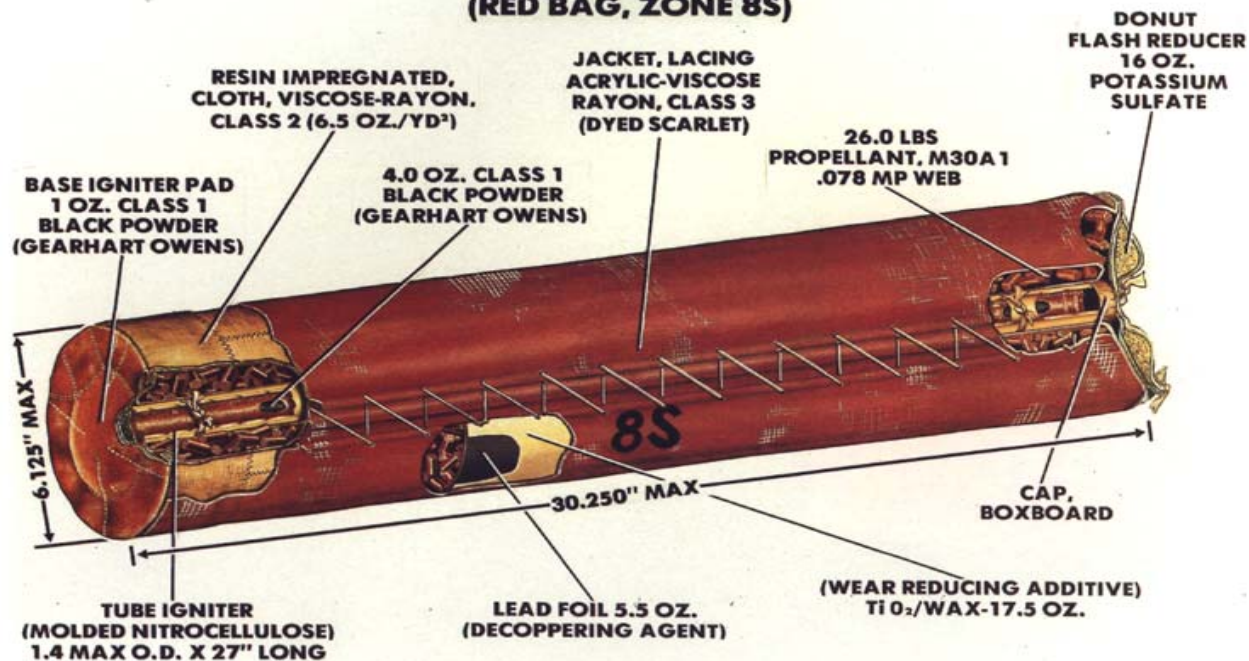
CHARGE, PROPELLING, 155MM: M119A2

GUNNERY DEPARTMENT

155MM, M203



CHARGE, PROPELLING, 155MM, M203 (RED BAG, ZONE 8S)

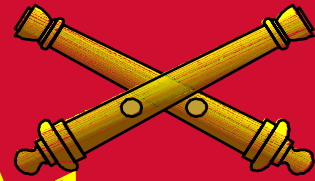


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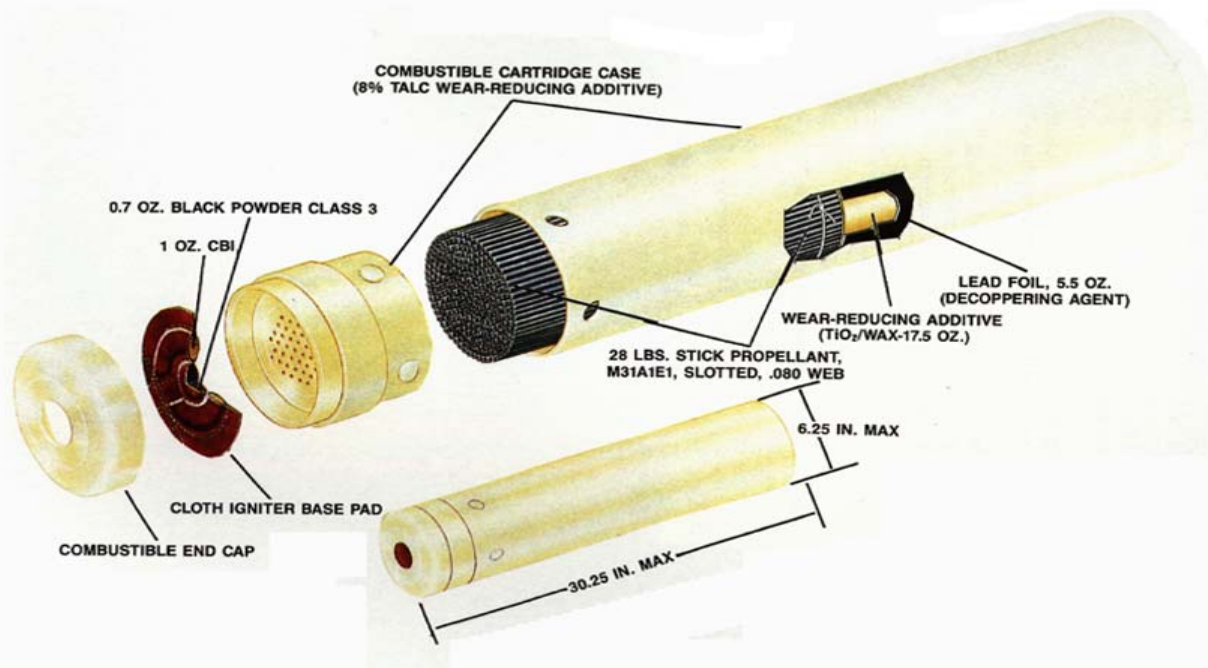
CHARGE, PROPELLING, 155MM: M203

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155MM PROPELLANT M203A1

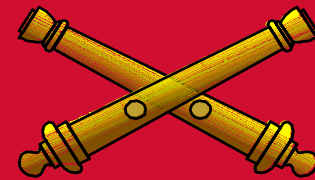


CHARGE, PROPELLING, 155MM: M203A1

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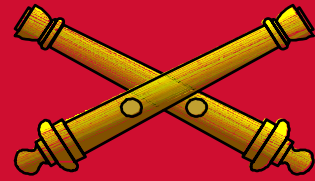
SELECT POWDER BURNING SITE



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GUNNERY DEPARTMENT

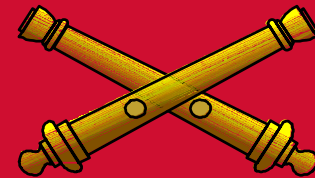
FIRE FIGHTING EQUIPMENT



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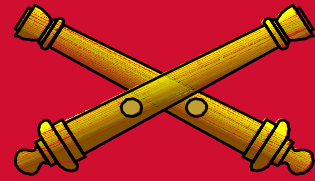
GUNNERY DEPARTMENT

DIRECTION OF WIND



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GUNNERY DEPARTMENT



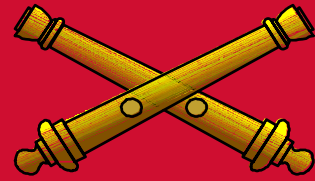
SINGLE LAYER OF POWDER



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GUNNERY DEPARTMENT

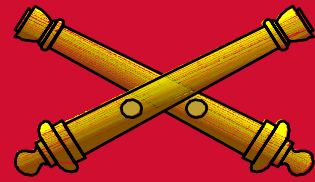
POWDER TRAIL



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GUNNERY DEPARTMENT

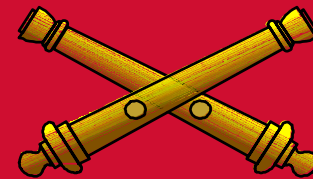
BURNING POWDER



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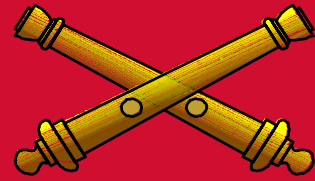
GUNNERY DEPARTMENT

CLEAN-UP

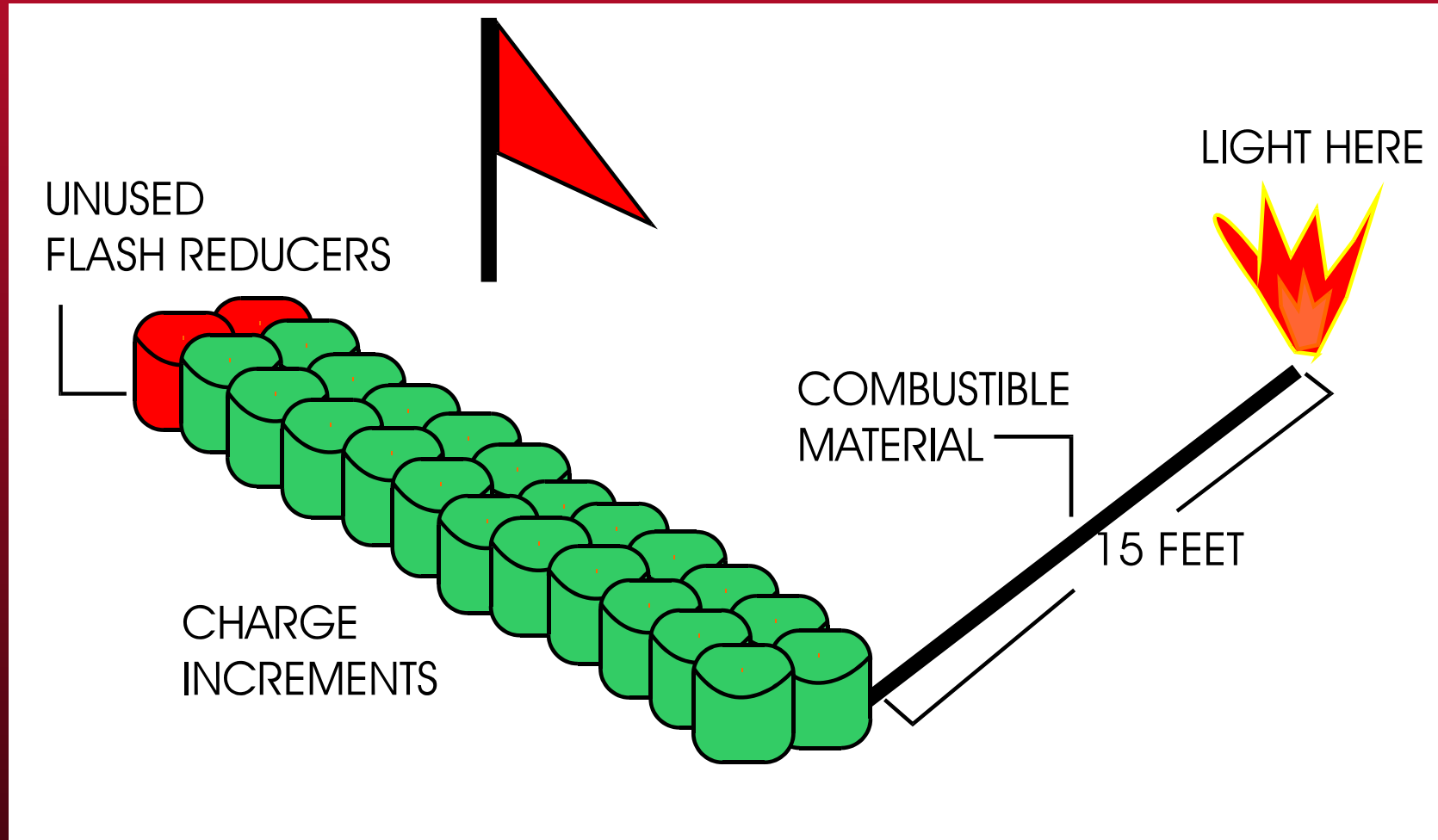


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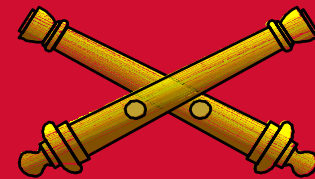
GUNNERY DEPARTMENT



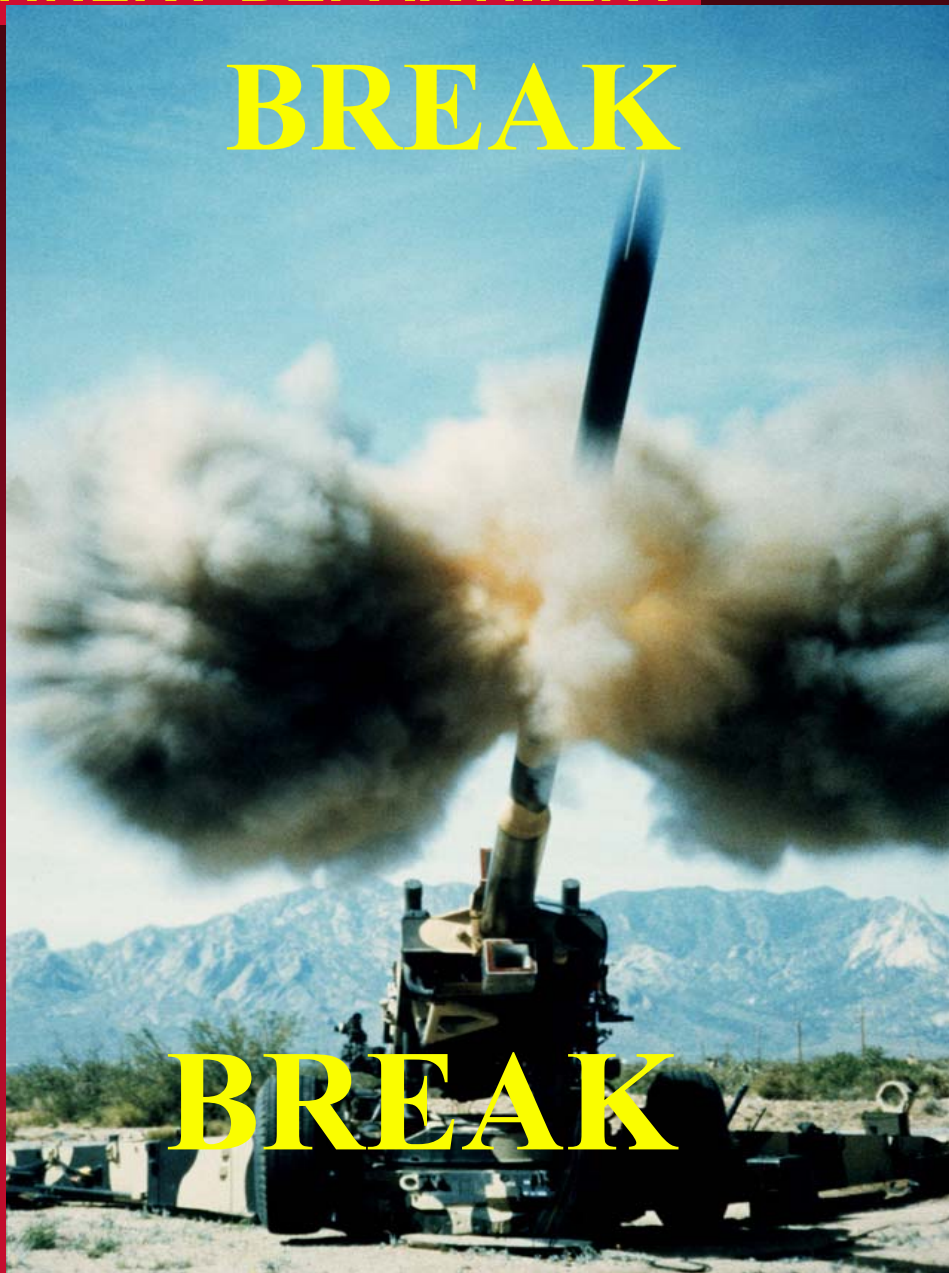
LAYOUT FOR POWDER BURNING



GUNNERY DEPARTMENT



BREAK



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